## Towards a research policy for Bronze Age Settlements

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In times of shortage the need for a basal research policy to ensure the optimal use of the available sources becomes more imperative than ever.

This has for too long been neglected in Denmark, the times when a firm policy was enforced by Sophus Müller as omnipotent ruler of Danish archaeology being looked upon with horror by lesser spirits of the day and by the following generations (cf. the discussion Kristiansen 1978–Becker 1979, Thorsen 1979).

The results were spectacular, the Single Grave Culture being born after 10 years of concentrated research digging and Iron and Bronze Age settlements at last being located and dug.

The National Museum during Therkel Mathiassen's rule still managed to conduct major projects aimed at solving specific problems like the Gudenå- and Åmose-projects for the Mesolithic and Neolithic, West Jutland and Northwest Zealand for the history of settlement (Mathiassen 1948 and 1959).

The last major effort from this venerable museum was the attempt in the 1950/60'es to excavate Bronze and Iron Age settlements as a logical continuation of Gudmund Hatt's impressive work in Jutland, but even now, 20 years later, no final publications have appeared and only the best sites have been presented in preliminary reports (Becker 1971, Kann Rasmussen 1968, Thorvildsen 1972, Thrane 1971, Vebæk 1971).

Now, due to the decline of the National Museum, the initiative has been with a number of other institutions for so long that no policy exists. A collective attempt 1971 to bring up the problem may have had effects on the individual level, but has otherwise been abortive.

The last major attempt was initiated by C. J. Becker and 1971 – 1977 the "Settlement Council" set up by the National Research Council conducted excavations above all of Iron Age Settlements and cemeteries with great success (Becker 1972, 1969, Becker *et al.* 1979, Hvass 1976, 1979, and others) even if the final publications have been slow to appear. This project was so costly that an immediate repetition or continuation is unlikely and it suffered from having a too narrow basis for selection. Far too few sites were available to choose from, due to a nearly total lack of up-to-date survey data – on the ground, under water or from the air.

The result was that nearly all activity was concentrated in West and Central Jutland, without a preceding discussion of the desirability of this.

This sort of geographical or other bias is typical of short term projects which have to be carried through during a short period because of personal constellations in the deciding bodies. This situation should be contrasted with the optimal situation where the money is only applied for when the starting platform has been thoroughly prepared, i.e. when an evaluation of the current state of knowledge has been made and a sufficient sample is available to choose from. Only then can a geographical, chronological and typological representativity be obtained – or a bias if that is thought to be the right thing.

The immediate background for the "Settlement Council" initiative was the threat to the archaeological sources from the mechanization of Danish agriculture compared to the near non-existence of totally excavated settlements and cemeteries.

Apart from the spectacular results from Jutland the situation is now the same as in 1971; deep ploughing has continued to churn up our Pre- and Protohistoric settlements countered by individual attempts to rescue something from the most eyecatching sites.

Elsewhere I have tried to sketch the background for the present paper, the situation created by 100 years of research, how and why Bronze Age settlements were found and how archaeological techniques as well as non-archaeological trends, such as the mechanization of modern society have led to the present state of knowledge (Thrane n.d.). In giving an outline of some recent results I hope to raise some issues vital to a better understanding of Bronze Age society through future work on the basic social units – the settlements.

This view is entirely personal but may perhaps lead to a discussion of basic principles as well as specific issues, a discussion which is long overdue. For the task of giving priorities which the newly created "Council of Ancient Monuments" (Fortidsminderådet) views as an urgent one, a general discussion would be extremely valuable.

Bronze Age settlements are now known in such numbers that it is evident that their discovery is no more difficult than that of Early Iron Age Settlements. The absence of BA Settlements from Mathiassens surveys was because the effects of deep ploughing were still minimal in 1953. (Thrane n.d.) Recent survey in Southwest Funen has given a minimum of 26 settlement sites on 36 km<sup>2</sup> all pottery dated to Late Bronze Age.

There is a great contrast between the earlier material exclusively represented by pits and refuse layers and the new, largely house-dominated, settlement excavations. An incredible increase in the number of house plans excavated has been seen since 1955 when the first houses were dug at Fragtrup. Large scale excavations in the West Jutland area have revealed more than 100 houses (Becker 1976) with Vadgård as the second largest group (Lomborg 1973, 1976).

This abrupt change over only few years has led to a nearly exclusive interest in houses, which is understandable enough considering the amount of information about technology, sociology and architecture latent in this fundamental source group. Attempts have been made to apply this new material to the questions of the linkage between BA and Pre-Roman Iron Age (Becker 1980) and of the structure of BA settlements (Becker 1976, Lomborg 1973).

In spite of the obvious importance of the new material pitifully few house plans – not to mention supporting data, such as publication of the pottery providing the dates – are available. At a rough estimate less than 10 % have been preliminarily published. This lack of information is most unfortunate as it gives rise to too many poorly founded speculations. A comprehensive study of Bronze Age ceramics is long overdue and is really a precondition for any settlement chronology.

Even if there are difficulties in dating individual houses, there are now so many house plans available, that regional types may be recognized at least for some areas. The one most fully illustrated is the west Jutish LBA type with rounded ends and set back door posts in the middle of both long walls (Becker 1968, 1972, 1976). This type with its three aisled post construction fits well into a wider North European context (Müller-Wille 1977) and also into an historical evolution leading on into the IA. The latest reconstruction is Lomborg's (1979).

At least three groups may be established in the west Jutish finds: 1. the great long house or hall without stable, reaching lengths up to 25–33 m., widths up to 8 m (Becker 1972, Fig. 7–10); 2. the average dwelling house with lengths of 10–20 m. and widths of 6–7 m., some with stable ends (Jensen 1970); and 3. the small rectangular four-post constructions,  $6–9 \times 3-4$  m., which are seen as storage houses and which also accompagny the dwelling houses at a ratio of 1:1 as in the PRIA (Becker 1976, and Müller-Wille 1977, Abb 12–18, 21 and 23).

Other house types include the smaller, nearly oval post houses of the Limfjord area (Lomborg 1974, Fig. 4, 1976, Abb 3), datable to the EBA with lengths of 12 m. and the smaller houses with similar size and ground plan but with turf walls or foundations (Lomborg 1974, Fig 2-4 & 7, 1976, Abb 2). Houses with partly sunken floors (working areas or cooking areas?) are known from Egehøj (Boas 1980) and are also represented at Vadgård (Lomborg 1976, Abb. 4). They reflect traditions from the Neolithic (Aarup Jensen 1973, Fig. 1, Callmer 1973). This multitude of EBA house types is supplemented by regular long houses like the west Jutish (Neumann 1975 and Bokelmann 1977). Obviously a variety of traditions and innovations were sorted out during the EBA to merge or to be purged into the more stereotype LBA long houses.

Next to nothing is known of the construction of floors, roof or interior plans since the floor levels are mostly ploughed away. What little we know indicates that the floors were probably just earthen, leaving no clear traces in the archeological record, that pithoi containing grain (Müller 1919, 37 f., Thrane 1971, Fig. 3), were placed in the houses and that special activities took place in the houses (Boas 1980). Bits of walls made of wattle and daub are known from many sites. In rare cases lime plaster or painted whitewash may be expected as at Kirkebjerg (Thrane 1979, Lomborg 1979. Cf. also the contribution by J. Berglund in this volume).

The first step towards a better understanding of the evolution and function of the Bronze Age houses will be to have all excavated house plans published with their dating evidence. Till then a broader geographical basis must be obtained, excavations like Skamlebæk being steps on the right path. The absence of data on the use and planning of the inside of the houses is a grave omission and complete excavation of houses with preserved floors from different regions should receive high priority.

The character of the complete settlements with houses and other buildings etc., i.e. whether they were single farmsteads or villages, remains controversial. The absence of stratigraphical evidence or of enclosures like Grøntoft (Becker 1969) prohibits unequivocal statements on this problem. Although the argument that Vadgård I (Lomborg 1974) was a settlement of some 8 individual houses finds support in the fact that Vadgård II (unpublished) consists of the same number of similar houses, it cannot be proved that the houses were all contemporary. Some may have been added and others given up during the lifetime of the individual settlement. If a village is to be understood as a society of at least three contemporary households with farming as their primary way of living, further problems arise. They become even more acute in the west Jutish settlements like Ristoft and its neighbours (Becker 1977) where the limits of the settlements seem rather fluid. I do not see any way of determining the size of the average BA settlement here and even less elsewhere. There are too few large scale excavations and too few of them have been published. To establish regional differences is out of the question at the moment. This problem can only be solved through a programme of trial excavations on suitable sites to establish the conditions of preservation and the practical feasibility of excavating a solution with limited means - certainly a long term project.

Another vital issue – the duration of the individual settlements – is still open to discussion. The absence of culture layer need not indicate a short period settlement, later activities may have destroyed it. The presence of layers more than 1 m. thick on some BA settlements clearly shows prolonged or repeated settlement. The idea of prolonged, if not permanent, settlement in some areas may find support in the mounds made of cooking stones so well known from Sweden (Hyenstrand 1979) and now also from Zealand (Gregersen 1969, Thrane 1975) and Kirkebjerg (Berglund, this volume).

They are obviously by-products of a long settlement period – or of a very intensive and extensive shorter one – and accompany some of the east Danish sites with substantial deposits of rubbish: Jyderup, Skamlebæk, Kirkebjerg.

There is no evidence enabling us to decide which alternative to prefer; periodic movements of the whole settlement or movements of individual houses or activity centres within the confines of the settlement may result in the same archaeological traces. At Jyderup and Kirkebjerg pits were dug into older pits (Thrane 1971, Fig. 5) and at Kirkebjerg wind blown sand separates three stratified levels. Several of Becker's sites have at least 2 phases of houses on top of each other. The concept of the wandering or fluctuating settlement moving at intervals within rather narrow limits has pervaded the interpretation of IA settlement at least in W. Jutland since Becker's impressive series of excavations (Becker 1971, 108). Much points towards a more general use of this kind of settlement pattern even during most of the BA (Thrane 1980).

At Vadgård we find that the settlement seems to have moved after an unknown period of time, perhaps 100 years. It did not move very far – 160 m. – if it really was the same settlement. Becker's series of BA settlements would be plausibly explained by this pattern. The evidence elsewhere is not sufficient to ascertain whether the same situation ruled in other parts of Jutland and on the islands. It could be argued that the east Danish settlement with their thick deposits represented another settlement pattern i.e. exploitation system. Further information is needed before this problem can be solved.

The reason for the existence of the moving village pattern is still obscure, i.a. because so little is known of the economy of the west Jutland settlements – due to the absence of rubbish.

Pollen diagrams could come in very useful here – but how do we get them done in DK? They would be extremely valuable not only in relation to the question of area continuity – wandering village or permanent village, but perhaps even more so in providing us with the environmental background for different types of settlement and their subsistence economy. The situation is really drastic for a country known as pioneering in the field of palynology. No single up-to-date pollendiagram is available for a BA settlement and whole areas such as Funen are devoid of even a single general diagram illustrating the evolution of the flora.

Actually our knowledge of food production during the Bronze Age has not improved much since 1919 (Winge and Jessen), and the application of new retrieval techniques for botanical information has been neglected – largely because of the absence of research potential. The lack of scientists able (or willing) to do the sort of work that archaeologists want has been serious for so many years that the situation tends to be accepted as just inescapable. The lack of younger scientists to succeed the present staff will be disastrous in the future. The research councils are probably the only ones who could alter this situation.

To my mind the best framework for future work is a regional one. Only through concentrated effort in limited areas can sufficiently coherent data be obtained at reasonable expense on the individual houses or settlements or settlement pattern of a chosen period – and also on the preceeding and succeeding periods. If archaeology has anything to do with history, diachronic knowledge must be rated high.

One such region could be Odsherred in Northwest Zealand. It is a natural entity, probably an island in Prehistoric times, with the advantage of being little urbanized, with a number of small woods providing shelter for otherwise doomed types of monuments (Thrane 1975) and a reasonable size. It was surveyed as part of Therkel Mathiassen's large scale project (1959) and his work has been followed up by more recent excavations combining excavations of settlements with grave excavations to present a fuller picture (Thrane 1971 & 1975, Lomborg 1977, Gregersen 1969). Large scale excavations at Skamlebæk in preparation for construction work have given a wealth of material. It must be hoped that there will be opportunity to study this soon and that the full extent and time range of the settlement will have been established before excavations are stopped. This is obviously another long term project, but one for which the National Museum is well suited because of its long standing interest in the area.

Another project is planned for the Norsminde fjord on the East coast of Jutland in continuation of the Stone Age settlement study being undertaken by Søren H. Andersen (1976).

A third project has been running since 1973 on South West Funen as a joint venture by Odense University and Fyns Stiftsmuseum (Thrane 1978). Here a survey of an intensity like the Hagestad project (Strömberg 1978) is supplemented by a concentration of rescue excavations. Although the project covers the entire Prehistoric period continuing into the Middle Ages, Late Bronze Age is being focussed heavily upon.

Barrows of different types, ranging from mini- to super-size and quality (Lusehøj, Thrane 1977) have been excavated as well as contemporary settlements. The most important of these is undoubtedly Kirkebjerg in Voldtofte (Berglund 1982), where the National Museum more than 60 years ago made the first spectacular excavations (Müller 1919).

This project has shown the presence of a large potential of settlement sites which will provide us with a solid basis for the selection of sites for rescue excavation over the years to come.

Observations in many ways similar to those made at Skamlebæk have been made and possibilities for relevant scientific work are eminently present. To find ways and means of exploiting them will be important.

While Southwest Funen had a special importance during the middle of the late Bronze Age – ca 850 BC – it should be possible to examine the background and the cause of the eclipse which this area suffered during the final BA.

While projects are under way which will elucidate the Bronze Age settlement of the major islands and East Jutland it seems strange that the work on West Jutland so brilliantly inaugurated with the many house excavations should not be continued. It will thus remain one of the much too common isolated pillars of knowledge in a sea of ignorance – a situation far too common yesterday to be accepted for tomorrow.

A study of a settlement is not complete until a knowledge of its physical and cultural environment has been obtained. If an excavation is important enough to spend 100,000 kroner some effort should be made to round off the work harmoniously. There are cheaper ways of obtaining the relevant knowledge than stripping the topsoil away and professional archaeologists are not the only workers in the garden of archaeology.

Last but not least top priority should be given to the preservation of a reservoir of settlement sites, which should be typical as well as exceptional and geographically and chronologically representative.

It is legitimate and even desirable to rescue sites from the silent death at the hand of contractors etc. but it is even more important to ensure that future generations with better facilities are ensured a sufficient potential of sites to choose from. New ideas and techniques and perhaps a more leisurely rythm will surely enable them to correct many of our mistakes and gain new levels of knowledge. This action is by no means easy; such a demand contrasts with the "rabies archaeologorum" (Olsen 1979), which favours the easiest and quickest way of immediate excavation, as well as with the unwillingness of farmers to let their land be controlled or "preserved" and with the unwanted pressure by farmers on the political sphere.

Every opportunity must be seized to achieve this protection against the slow destruction by farming as complementary to the immediate threat of construction and extraction.

PS. For the islands the situation is not much different for Iron Age sites, so that a very similar strategy seems desirable for this period too.

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